WHAT IS CLAIMED IS:

1. A chip transfer apparatus for transferring chips onto works, the apparatus comprising:

a first carrier for carrying chips thereon;

a second carrier for carrying works thereon;

a plurality of end-effectors receiving chips from said first carrier and transferring the chips onto the works carried by the second carrier;

a plurality of coaxial revolvers, each of which has said one end-effector, and can revolve around one common axis independently; and

servo drives, each of which drives each of said coaxial revolvers to independently and randomly change periodic revolving speed of each coaxial revolver;

wherein each of said end-effectors is inseparably mounted on each of said coaxial revolvers and distributed in one common circle around said axis,

wherein each of said end-effectors moves sequentially keeping their order by the action of said servo drives,

and is synchronized with said first carrier movement to receive a chip from said first carrier at substantially zero speed relative to said first carrier,

and is synchronized with said second carrier movement to transfer said received chip onto the work on said second carrier at substantially zero speed relative to the second carrier,

and is independently changed its revolving speed during the periodic motion including said receiving and transferring motion.

2. The transfer apparatus according to claim 1 wherein each of said

coaxial revolvers includes a coaxial bearing arranged in order in the axial direction having an inner race fixed to an outer race of the coaxially adjacent bearing, and having an outer race fixed to an inner race of the coaxially adjacent another bearing;

the inner race of the bearing on one end side being fixed to an outer race of an additional bearing which inner race is fixed to one fixed side and the outer race of the bearing on the other end side being fixed to the other fixed side;

each of said end-effectors being inseparably fixed to the inner race of the associated bearing, and the outer race of the associated bearing being activated by a rotational driving force of each of said servo drives.

3. The transfer apparatus of claim 1 wherein each of the coaxial revolvers is individually and independently made its periodic speed change and phase control by the operation of the associated servo drive.

4. The transfer apparatus according to claim 3 further comprising:

a measuring unit for measuring the speed of the chip carried on the first carrier and/or the speed of the work carried on the second carrier;

the servo drives being operated on the basis of the measurement result of the measuring unit.

5. The transfer apparatus according to claim 3 wherein, even if the first and second carriers move at different speeds, each of the end-effectors receives a chip from the first carrier at substantially zero speed relative to the first carrier synchronized with the first carrier movement, and transfers the received chip onto a predetermined position of the work on the second carrier at substantially zero speed relative to the second carrier synchronized

with the second carrier movement.

6. The transfer apparatus according to claim 5 wherein each of the first and second carriers is a rotating cylinder or a conveyor belt.

7. The transfer apparatus according to claim 1 wherein the chips are electronic parts, and wherein the works are IC card parts or RF tag parts in the form of sheets.